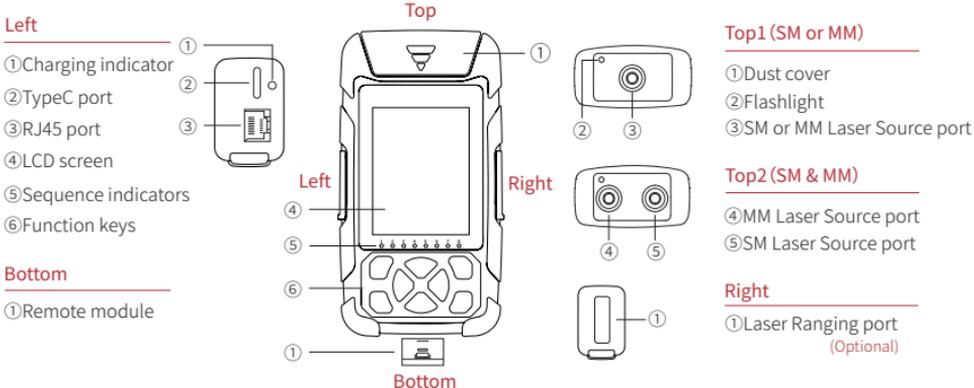# Stable Laser Source series

Users' Manual

Summary

Stable Laser Source series are controlled by a chip microprocessor and displayed by 2.8 inches color LCD. The body shape is novel, adopts advanced thermoplastic molding technology. which is beautiful and durable. It supports SM/MM mode light source output，wave ID and TWINS mode output.The output power is adjustable.

Stable Laser Source, RJ45 Sequence and flashlight are standard configuration. RJ45 Tracking, Laser Ranging and Bluetooth are optional. They are mainly used for continuous optical signal power measurement, optical fiber link loss test and optical fiber line on-off test. They are widely used in optical cable construction and maintenance, optical fiber communication, optical cable sensing, optical CATV and other fields.
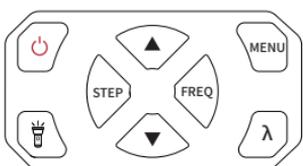
Note:① the functions of the instrument are different due to different models；
②Due to the need of design improvement, the contents are subject to change without notice.

Ports

2

Left
①Charging indicator
②TypeC port
③RJ45 port
④LCD screen
⑤Sequence indicators
⑥Function keys

Bottom
①Remote module

Top

Left ④ ⑤ ⑥ **Right**
① ② ③ ④ ⑤ ①

Bottom

Top1（SM or MM）
①Dust cover
②Flashlight
③SM or MM Laser Source port

Top2（SM & MM）
④MM Laser Source port
⑤SM Laser Source port

Right
①Laser Ranging port
(Optional)

Keys

3

Function keys description

⏻ ：①Short press to power on, long press to power off
②After power on, short press to turn on or off the automatic shutdown function

🔦 ：Short press to turn the flashlight on or off

▲ (Up key)、▼ (Down key)：Toggle items to be set

STEP （Left key）、FREQ （Right key）：Adjust the item's value

MENU：Toggle the different function modules

λ：Toggle the different wavelengths

Icons

4

According to different functions and specific operations, the corresponding icon will appear in the interface of this series of instruments. When an icon appears, it means that the corresponding function has been opened or the corresponding operation has been completed. The main icons of the instrument are as follows:

⏻ **Automatic shutdown,** in the set time without any operation, the instrument automatically shut down

↕ **Data transmission,** through the data line connected to the computer, copy the internal data of the instrument

✳ **Bluetooth,** turn on Bluetooth to connect to mobile phone

💾 **Save completed,** indicating that the test results have been saved

🔦 **Flashlight,** turn on the flashlight LED light

12:30 Time, display the local time

🔋 **Battery,** indicating battery capacity

Laser Source

5

Light source: used for telecommunication, CATV, LAN cable parameter test; The insertion loss, isolation and return loss of optical passive components are tested; Wavelength responsivity test of detector.

λ：Switch the output wavelength. When the wavelength is selected, the laser source is turned on by default.

◀：Adjust the step to 0.1dB or 1dB.

▲/▼：Adjust the output power, the range is -5.0dBm to -11.0dBm.

▶：After the laser source is turned on, switch CW (continuous), modulation 270/330/1k/2kHz, ID, twins mode.

ID： Used for wavelength identification with OPM ID function.

TWINS：After turned on, the LS emits 1310&1550nm alternately, and the OPM automatically identifies and tests the power of 1310nm and 1550nm alternately.
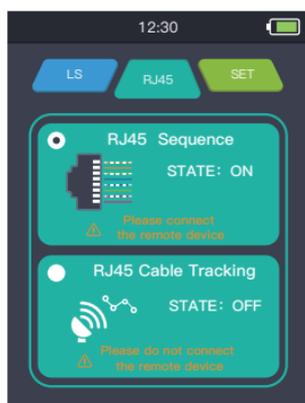
RJ45 sequence: When testing, please use the remote module at the bottom of the instrument.

RJ45 Cable Tracking: After this function is started, touch the tested cable with the cable finder, and hear the continuous "didi" sound, which is the target cable.

This equipment can withstand voltage and prevent burning, and it can be used for line searching directly. Ethernet switches, routers and other weak current equipment with DC voltage less than 60V.

▲ / ▼: Switch between RJ45 sequence test and cable tracking test. After selection, the function is turned on by default.

```
              12:30          🔋
   LS        RJ45         SET

   ⦿ RJ45  Sequence
              STATE: ON
   ⚠ Please connect
       the remote device

   ○ RJ45 Cable Tracking
              STATE: OFF
   ⚠ Please do not connect
       the remote device
```

Laser Ranging: The maximum test distance is 40 meters.
Test Mode:
Single: Stop after one test.
Continuous: Test the length every 1 second.
Reference point: Choose a different starting point for testing.

- Starting from the left side of the instrument, the test results include the length of the instrument;
- Taking the laser emission port of the instrument as the starting point.

Up and down key: switch reference point.
Left and right key: switch single test or continuous test.

```
              12:30          🔋
   SET        LR          RJ45

   Single

   15.663 m

   Testing......
   Single      Continuous
```
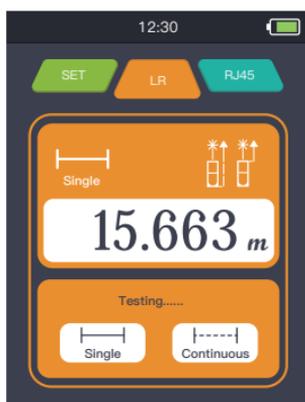
System settings: set the relevant information of this machine.
AUTO OFF: set the automatic shutdown time, optional 10 minutes / 30 minutes / 1 hour.
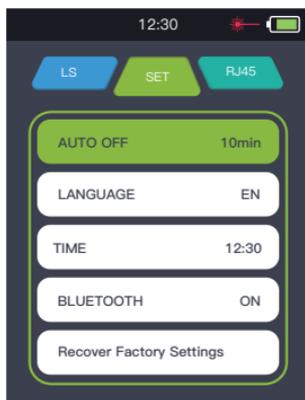**Language:** Chinese, English optional.
Time: press the left and right buttons to switch the date and time, press the left and right buttons to move the setting item, and press the λ Enter or exit edit mode.
Bluetooth: turn Bluetooth on or off.
Restore factory settings: Press λ to pop up "Y/N?" Press the left and right keys to switch Y (yes) or N (no) and press λ again to confirm the operation.
Up and down keys: select the item to be set.
Left and right buttons: adjust the value of the set item.

```
              12:30          🔋
   LS        SET          RJ45

   AUTO OFF              10min
   LANGUAGE                 EN
   TIME                  12:30
   BLUETOOTH               ON
   Recover Factory Settings
```

Laser Source		
Wavelength	850/1300±20nm	1310/1490/1550±20nm
Output power	≤-5dBm	
Adjusting range	0~6dB	
Adjusting step	0.1dB/1dB	
Mode	CW/270/330/1k/2kHz	
Stability	±0.2dB/15min (After preheating for 15 minutes)	
Connector	FC/SC	
RJ45 Cable Sequence		
Test Range	≤300m	
RJ45 Cable Tracking（optional）		
Test Range	≤300m	
Tracking mode	Digital tracking	
Live/line to line search	Support	

Laser Ranging (optional)	
Wavelength	650±40nm
Test Range	0.05~40m
Accuracy	±2.0mm
Others	
Display	2.8 inch color LCD，240×320
Power Supply	Rechargeable Li-battery，2200mAh
Wireless interface	Bluetooth (optional)
Automatic shutdown time	10min/30min/1 hour
Battery duration	≥12h
Operating temperature	-10℃~+50℃
Storage temperature	-40℃~+70℃
Relative humidity	0~95% No condensation
Weight	About 235g
Dimensions	140mm×32mm×73mm

Clean connectors

The optical output interfaces must be kept clean during use. When the test result is not accurate, first consider cleaning the connector.

When cleaning, be sure to turn off LS function. Wipe the connection end face with a swab wetted with alcohol.

At the same time, please cover the dust cap after using the instrument, and keep the dust-proof clean at the same time.

Instrument screen cleaning

When using, do not click on the LCD with sharp objects, or the derivative LCD screen may be damaged. When cleaning, clean the LCD screen with soft paper. Do not wipe the LCD screen with organic solvent, otherwise it may damage the LCD screen.